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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,131	07/20/2001	Matthew Zavracky	0717.1086-011	1720

21005 7590 11/17/2003

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.  
530 VIRGINIA ROAD  
P.O. BOX 9133  
CONCORD, MA 01742-9133

EXAMINER
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NGUYEN, FRANCIS N

ART UNIT	PAPER NUMBER
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2674

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DATE MAILED: 11/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/910,131

**Applicant(s)**

ZAVRACKY ET AL.

**Examiner**

FRANCIS NGUYEN

**Art Unit**

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21,23-31,33-44 and 46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21,23-31,33-44 and 46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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**DETAILED ACTION**

***Response to Amendment***

1. The amendment filed 2/04/03 is entered.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-21, 23-31, 33-44, 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Zavracky et al. ( US Patent 6,097,352).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

As to claim 1, Zavracky et al. teaches a portable communications device ( head mounted computer shown in figures 28, 29A ) comprising:

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a wireless transceiver that receives audio and image data ( wireless transducer for transmitting and receiving digital, audio, video and data signals, column 24, lines 22-26);

a light source having a plurality of light emitting diodes devices ( LED sources, column 21, lines 32-35)

a liquid crystal display panel optically coupled to the light source ( light passing through LCD, column 21, lines 43-44, figure 21) for rendering a viewable image from the image data

a lens optically coupled to the display panel ( lens 440 coupled to display 90 shown in figure 8); and

a sequential color circuit coupled to the display panel and the light source such that the light source generates a plurality of colors in sequence ( sequential color circuit 407 shown in figure 8, column 11, lines 1-6)

As to claims 2 and 9, Zavracky et al. teaches the light source comprises red, green, and blue LEDs ( column 21, lines 34-35) .

As to claim 3, Zavracky et al. teaches a portable telephone (cellular telephone connection column 24, lines 25-28 ).

As to claim 4, Zavracky et al. teaches a reflector 1958 shown in figure 32 .

As to claim 5, Zavracky et al. teaches a diffuser 1960 shown in figure 32.

As to claim 6, Zavracky et al. teaches a lens which magnifies the image on the display panel ( projection lens 240, column 10, lines 12-13).

As to claim 7, Zavracky et al. teaches an active matrix circuit( active matrix drive circuit, pixel transistor , column 2, lines 18-38, active matrix region 90, column 8, lines 12-14 ).

As to claim 8, Zavracky et al. teaches a camera ( camera 1555b, column 23, lines 20-22 ).

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As to claim 10, Zavracky et al. teaches display panel and sequential color circuit positioned in a display module housing that is attached to a transceiver housing ( display pod 1100 attached to headband 1512 where PCMCIA module is coupled to, column 23, lines 8-23, figure 28).

As to claim 11, Zavracky et al. teaches a head-mountable mechanism ( column 23, lines 8-12, figure 28).

As to claim 12, Zavracky et al. teaches a control processor coupled to the sequential color circuit ( column 24, lines 18-19).

As to claim 13, Zavracky et al. teaches a memory coupled to the control processor ( local data storage device 1714, column 24, line 1)

As to claim 14, Zavracky et al. teaches an active matrix circuit bonded to a transmissive substrate (active matrix drive circuit fabricated in integrated circuit module formed in a silicon-on-insulator structure, column 2, lines 18-24).

As to claim 15, Zavracky et al. teaches a method of displaying images with a portable communications device( head mounted computer shown in figures 28, 29A ) comprising :

receiving audio and image data with a wireless transceiver( wireless transducer for transmitting and receiving digital, audio, video and data signals, column 24, lines 22-26);

with a liquid crystal matrix display panel, generating a plurality of image subframes for each color frame, each subframe representing a different color ( red/green/blue subframes in figure 16 ) ;

coupling a lens to the matrix display panel( lens 440 coupled to display 90 shown in figure 8);

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rendering an image for each subframe in temporal sequence on the matrix display panel (sequential color circuit 407 shown in figure 8, column 11, lines 1-6, subframes, column 7, lines 6-10); and

illuminating the matrix display panel by a plurality of light emitting diode devices (LED sources, column 21, lines 32-35) to display a color image frame that is viewable through the lens.

As to claim 16, Zavracky et al. teaches enclosing a transceiver in a portable telephone housing (wireless transducer, communication module 1720 with cellular telephone connection, column 24, lines 22-28).

As to claim 17, Zavracky et al. teaches pivotably coupling a display housing to the telephone housing (display pod 1100 attached to headband 1512 where PCMCIA module is coupled to, column 23, lines 8-23), wherein the matrix display panel is enclosed by display housing (display pod 1110 comprising matrix display panel).

As to claim 18, Zavracky et al. teaches active matrix display circuit (active matrix drive circuit, pixel transistor, column 2, lines 18-38, active matrix region 90, column 8, lines 12-14).

As to claim 19, Zavracky et al. teaches LEDs for illuminating the display are a backlight (column 21, lines 66-67 through column 22, line 5).

As to claim 20, claim 20 differs from claim 1 in limitation wireless telephone transceiver, and audio transducer. Note the same citations for claim 1; also, note Zavracky et al. does teach wireless telephone transceiver (cellular phone, voice communications, column 24, lines 24-28), audio transducer (wireless transducer for transmitting and receiving digital, audio, video and data signals, column 24, lines 22-26).

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As to claim 21, Zavracky et al. teaches the light source comprises red, green, and blue LEDs ( column 21, lines 34-35) .

As to claim 23, Zavracky et al. teaches a reflector 1958 shown in figure 32 .

As to claim 24, Zavracky et al. teaches a diffuser 1960 shown in figure 32.

As to claim 25, Zavracky et al. teaches a lens which magnifies the image on the display panel ( projection lens 240, column 10, lines 12-13).

As to claim 26, Zavracky et al. teaches an active matrix circuit( active matrix drive circuit, pixel transistor , column 2, lines 18-38, active matrix region 90, column 8, lines 12-14 ).

As to claim 27, Zavracky et al. teaches a camera ( camera 1555b, column 23, lines 20-22 ).

As to claim 28, Zavracky et al. teaches the light source comprises red, green, and blue LEDs ( column 21, lines 34-35) .

As to claim 29, Zavracky et al. teaches display panel and sequential color circuit positioned in a display module housing that is attached to a transceiver housing ( display pod 1100 attached to headband 1512 where PCMCIA module is coupled to, column 23, lines 8-23, figure 28).

As to claim 30, Zavracky et al. teaches a head-mountable mechanism ( column 23, lines 8-12, figure 28).

As to claim 31, Zavracky et al. teaches a control processor coupled to the sequential color circuit ( column 24, lines 18-19).

As to claim 33, Zavracky et al. teaches an active matrix circuit bonded to a transmissive substrate ( active matrix drive circuit fabricated in integrated circuit module formed in a silicon-on-insulator structure, column 2, lines 18-24).

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As to claim 34, claim 34 differs from claim 1 in preamble wireless telephone, limitation telephone housing, limitation transceiver within the housing. Note the same citations for claim 1. Note Zavracky et al. does teach wireless telephone (cellular phone, column 24, lines 24-25), thus communication module 1720 inherently has a telephone housing for communication electronics which typically include transceiver.

As to claim 35, Zavracky et al. teaches the light source comprises red, green, and blue LEDs (column 21, lines 34-35).

As to claim 36, Zavracky et al. teaches a reflector 1958 shown in figure 32.

As to claim 37, Zavracky et al. teaches a diffuser 1960 shown in figure 32.

As to claim 38, Zavracky et al. teaches a lens which magnifies the image on the display panel (projection lens 240, column 10, lines 12-13).

As to claim 39, Zavracky et al. teaches an active matrix circuit (active matrix drive circuit, pixel transistor, column 2, lines 18-38, active matrix region 90, column 8, lines 12-14).

As to claim 40, Zavracky et al. teaches a camera (camera 1555b, column 23, lines 20-22).

As to claim 41, Zavracky et al. teaches the light source comprises red, green, and blue LEDs (column 21, lines 34-35).

As to claim 42, Zavracky et al. teaches display pod 1110 comprises a color sequential generator (column 23, lines 11-13).

As to claim 43, Zavracky et al. teaches a head-mountable mechanism (column 23, lines 8-12, figure 28).

As to claim 44, Zavracky et al. teaches a control processor coupled to the sequential color circuit (column 24, lines 18-19).



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As to claim 46, Zavracky et al. teaches an active matrix circuit bonded to a transmissive substrate (active matrix drive circuit fabricated in integrated circuit module formed in a silicon-on-insulator structure, column 2, lines 18-24).

### *Response to Arguments*

3. Applicant's arguments filed 2/04/2003 have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

4. The prior art of made of record is not relied upon, but pertinent to Applicant's disclosure:

US Patent	Eichenlaub	5,428,366
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US Patent	Jacobsen et al.	6,073,034
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Reference Eichenlaub is made of record as it discloses a field sequential color illumination system for liquid crystal display.

Reference Jacobsen et al. is made of record as it shares the same assignee with Applicant's disclosure, and it discloses a wireless telephone display system.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **FRANCIS N NGUYEN** whose telephone number is **703 308-8858**. The examiner can normally be reached during hours 8:00 AM- 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached at 703 305-4709.

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**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231


**or faxed to:**

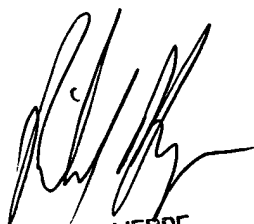
**(703) 872-9314 ( for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA, Sixth Floor ( Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the Technology Center 2600 Customer Service whose telephone number is  
(703) 306-0377.

FRANCIS N NGUYEN  
Examiner  
Art Unit 2674

  
FN  
November 7th, 2003

  
RICHARD HJERPE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600